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*Keywords:* Stroke; Driving

*Introduction*.– Currently, the driving resumption procedure for stroke patients is complex in terms of evaluation, medical advice and legislation. Not much data is available on the resumption of driving after a stroke. The objective of our study is to describe the frequency of driving resumption after a stroke based on population, activity status and the driving resumption conditions.

*Method*.– Retrospective study by phone survey to all stroke patients hospitalized in Neurology (NeuroVascular Unit) at the University Hospital of Caen in 2011.

*Results*.– Study ongoing.

*Discussion*.– In the literature, 30 to 50% of patients drive again after a stroke. The average time to complete a driving test is 8.8 months (from 1.9 to 18.5 months), and the time to restart driving is about 18 to 20 months.

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P430-e

## Stroke in the very elderly: Characteristics and outcome in patients over 90

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*Keywords:* Stroke; Elderly; Disability; Rehabilitation

*Introduction*.– The very old are expected to become a growing part of the stroke population in the developed countries, but related information is limited.

*Materials and methods*.– Retrospective hospital-base population analysis of patients discharged from hospital with a principal diagnosis of acute stroke (ICD-10: 160–164) from 2003 to 2007. Patients over 90 were compared with the group of 85–89 regarding demographic data, stroke type, risk of disability, length of hospital stay and discharge destination.

*Results*.– Among 898 patients 42 (4.6%) were ≥ 90 (69% female), and 87 (9.6%) 85–89 (56.0% female). Ischemic stroke represented 83.3% and 77.0% respectively. Seven-day case fatality was 14.3% and 13.8%, and 30 day case fatality 26.2% and 26.4%. However severe disability (m-Rankin s-5) was observed among the eldest group, from 7,1% pre-stroke to 35,7% after stroke, increasing by 28,6% vs. 13,8% ($P < 0{,}01$). 14.3% of nonagenarians and 27% of the younger attended rehabilitation. LOS > 30 days and discharge to long-term care facilities were more frequent among the eldest: 9.5% and 14.2% vs. 4.6% and 8.0%, whereas discharge to prestroke residence was less common: 59.5% vs. 63.2%.

*Discussion*.– Stroke patients ≥ 90 showed higher disability at discharge, longer hospitalization, limited access to rehabilitation, and lower home return.

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P431-e

## Correlation and recovery of balance according to evoked potentials in hemiparetic stroke patients

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*Keywords:* Stroke; Evoked potential; Balance

*Introduction*.– This study was undertaken to investigate correlation and recovery of balance ability according to motor evoked potentials (MEPs) and somatosensory evoked potentials (SSEPs) of lower extremity in sub-acute hemiparetic stroke patients.

*Material and methods*.– Thirty-seven hemiparetic stroke patients [average age, 66.7 ± 12.6 years) were enrolled for this study. All subjects performed motor evoked potentials (MEPs) of tibialis anterior muscle and somatosensory evoked potentials (SSEPs) of tibial nerve at baseline. Two groups were classified as response of evoked potentials (MEPs (+): presence of MEPs response, MEPs (-): absence of MEPs response, SSEPs (+): presence of SSEPs response, SSEPs using the Bio rescue posturography. Among several parameters, we used weight distribution indices expressed by surface area (WDI-Sa) and pressure (WDI-Pr). Parameters were checked during eye open (EO) and eye closed (EC) state.

*Results*.– In comparison of posturographic parameters according to EPs response, WDI-Sa (EO) (0.83 ± 0.14 vs 0.97 ± 0.22, $P = 0.04$), WDI-Sa (EC) (0.81 ± 0.17 vs 0.95 ± 0.21, $P = 0.04$), WDI-Pr (EO) (0.69 ± 0.25 vs 0.90 ± 0.29, $P = 0.03$) and WDI-Pr (EC) (0.69 ± 0.25 vs 0.98 ± 0.35, $P = 0.01$) scores were significantly lower in MEPs (-) group than MEPs (+) group.

*Discussion*.– Our findings suggested that MEPs response was significantly correlated with balance ability at baseline in sub-acute hemiparetic stroke patients.

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P432-e

## Prevention of falls among patients with recent vascular hemiplegia at a physical medicine center: Assessment of a specific prevention program

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*Keywords:* Hemiplegia; Stroke; Fall; Prevention; Risk factors

*Objective*.– Analyse the effectiveness of a protocol for the prevention of falls in hemiplegia.

*Methods*.– A descriptive and retrospective study, performed over a period of 24 months of 114 patients older than 16 years of age, all victims of a recent stroke. Two groups were evaluated: one "fall prevention program" (presence of fall risk predictors), the other without these factors. The prevention program decided and followed by the medical team includes: magnetic belt, supervision during transfer, securited facility on toilet.

*Results*.– There was 42.98% of hemiplegics who fell down. In the group "prevention program" ($n = 35$), 15.79% fell, this rate increases in the other group ($n = 79$) up to 27.19%. Serious lesions occurred only in the group "without prevention program". A breach of protocol was noted in 55.81% of cases.

*Conclusion*.– The fall prevention program seems to reduce falls. A good identification of fall risk predictors and respect of the prevention program by caregivers are advisable.

*Further reading*

Pérennou D, El Fatimi A, Masmoudi M, et al. Incidence, circonstances et conséquences des chutes chez les patients en rééducation après un premier accident vasculaire cérébral. Ann Readapt Med Phys 2005;48:138–145.

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P433-e

## Prognostic value of motor evoked potentials in the locked in syndrome

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*Keywords:* Locked in syndrome; Motor evoked potentials

*Introduction*.– Motor evoked potentials obtained (MEP) distally after stimulation of the motor cortex early after stroke, provides arguments for motor recovery. There is little information in the literature about MEP as a predictive factor in the Locked in Syndrome (LIS).

*Case report*.– The case of a patient with an incomplete LIS following a pontic infarct the 26 of May 2013 is reported. After 4 months of follow-up, the beginning of an active motor control of the elbow flexors on both side and in finger flexors in the only right hand was observed. MEP were obtained on both upper limbs